

# F. A. S. NEWSLETTER

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----- to provide information  
and to stimulate discussion. Not to be  
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## OREAR TAKES OVER AS FAS CHAIRMAN; SATTERTHWAITE IS CHAIRMAN-ELECT

At the April FAS Council meeting in Washington, Jay Orear of Cornell University succeeded Marvin I. Kalkstein of the State University of New York (Stony Brook) as Chairman. Cameron B. Satterthwaite of the University of Illinois is the new Vice Chairman and Chairman-Elect. John O. Rasmussen of the University of California (Berkeley) is FAS Secretary and Leonard S. Rodberg of the University of Maryland is Treasurer. The 1967-68 FAS Executive Committee consists of these four officers and Kalkstein, Philip Jastram of Ohio State, Harry Palevsky of Brookhaven, and Harriette L. Phelps (ex officio, as Newsletter editor).

Newly-elected Council delegates-at-large for 1967-69 are:

Edward U. Condon	Seymour Melman
Freeman J. Dyson	Jack Orloff
John M. Fowler	Matthew Sands
Robert Gomer	Philip Siekevitz
David R. Inglis	Louis B. Sohn
Milton Leitenberg	Lincoln Wolfenstein

Continuing delegates-at-large (terms expiring in 1968) are:

Halton Arp	Alexander Pond
Manfred Biondi	Anatol Rapoport
Robert Birge	Victor Sidel
Robert S. Cohen	Jeremy Stone
Caroline L. Herzenberg	Maurice Visscher
Harry Palevsky	John O. Rasmussen

The FAS Council met on April 25th and April 26th and the next Newsletter will carry some reports of the meeting. On Sunday night, April 23rd, Dean Harvey Brooks of Harvard spoke to an FAS open meeting attended by members of the American Physical Society and others. Brooks, who is Chairman of the National Academy of Sciences' Committee on Science and Public Policy, took as his general topic the question of trends in Federal support of research. A lively discussion period ensued.

## SENATE APPROVES SPACE TREATY, 88-0

It came as a pleasant surprise to proponents of the space treaty that the Senate vote for its ratification on April 25th was unanimous. The treaty was approved after a day of perfunctory debate in which "conservatives" joined with "liberals" in endorsing the treaty as a constructive step toward preventing the extension of nationalistic competition into space.

The treaty (outlined in previous NEWSLETTERS) bans weapons of mass destruction from outer space and prohibits military bases on, or claims of national sovereignty to, the moon and other celestial bodies. It also specifies that the

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## FAS VIETNAM STATEMENTS—A DISSENTING VIEW

As noted in the February NEWSLETTER which carried the FAS Vietnam statements, a substantial fraction of FAS members had serious reservations either about (1) the substance and tone of the statements or (2) the wisdom of the FAS taking a public position in an area of national policy where it could not claim to speak with scientific competence, however strongly held the views of individual members.

For this reason, it seems appropriate to print in the NEWSLETTER the following letter from Ernest C. Pollard. Professor Pollard is Chairman of the Department of Biophysics at Penn State. He has been an FAS member for over twenty years, and is a former Vice Chairman and Council member. Formerly at Yale University, Pollard was Chairman of the Yale-centered FAS Scientists Committee on Loyalty and Security which produced, in 1954, a carefully researched and objectively written 33,000 word report on the Fort Monmouth security investigations. It seems fair to say that the 1954 FAS report, for which Pollard was chiefly responsible, and the 1967 Vietnam statements represent somewhat contrasting ways in which the FAS, over the years, has chosen publicly to address itself to issues of concern to its members and to American scientists.—H.L.P.

April 25, 1967

The February NEWSLETTER gave me my first chance to read the FAS statements on Vietnam. I had also read the release of the correspondence between President Johnson and Ho Chi Minh. This letter brought home to me the reality of the North Vietnamese position and the obstacles this presents to negotiation.

I am dismayed at the general approach taken by the FAS which seems to me to be partisan and not in keeping with a scientific position. I can single out especially the following part of a paragraph:

"It is evident to us that the continuation of the war is damaging to the interests of the nation, of the people of Vietnam, of mankind. We are opposed to our government's present role in Vietnam and urge the U.S. to take immediate steps to reduce its military involvement and to achieve an early termination of hostilities."

The release of the exchange between President Johnson and Ho Chi Minh showed that President Johnson did offer to de-escalate mutually and start negotiation. I cannot find any suggestion that Ho Chi Minh has similar thoughts. To do what is suggested in the paragraph just quoted from the FAS statement, therefore, requires that the United States can only achieve an early termination of hostilities by pulling out. It is my emphatic belief that to do so would not be furthering the interests of the nation, the people of Vietnam, and mankind. It would instantly create a sharp change in the balance of power, result in uprooting or death for perhaps five million Vietnamese and strongly set back the hopes for freedom of a large part of the world. It is not surprising that I feel that it is out of place for FAS to issue the statement. It seems to me that it is greatly at variance with their past operations such as the McMahon Bill, the FAS study of the Fort Monmouth security investigations, and the reinstatement of A. V. Astin. In the case of the McMahon Bill the overriding importance of civilian control of atomic energy was first understood by scientists who presented the

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## FAS VIETNAM STATEMENTS

case clearly and forcefully. The Fort Monmouth study was concerned with the vulnerability of security policies affecting science and scientists to political pressures. The reinstatement of A. V. Astin was based on the right of a careful laboratory study to be reported without political manipulation of the director of the laboratory. All these were clear cut instances in which the FAS had a real understanding of the point of issue and in which they could make their position clear without fear that time would damage the validity of their stand.

In the case of the Vietnam war, if we are to take a position, we should have carefully examined it and be certain it is valid. I do not believe this was done, and because I do not, I present some different thoughts.

First, there is a real difficulty about negotiation. This is because the clear majority opinion in the U.S. differs sharply from Ho Chi Minh's stated position that negotiations are only possible after the U.S. has withdrawn. Without pretending to be an opinion analyst I can say that of some 40 scientists I have recently polled as to a satisfactory end solution there is almost a total agreement on either (a) forming a separate S. Vietnam in an analogous way to S. Korea or (b) holding our position in S. Vietnam for a ten year period, after which an election is held. A very small minority favor an all out war, but this minority is as great as those who favor a gradual pull-out with the expectation that the Viet Cong would take over. Almost no-one thinks we should pull out, apologize and pay an indemnity, probably the only present basis for a rapid end to the war. It would be worthwhile for the FAS to conduct an opinion poll on a wider basis. I suggest they do it.

Since we face a continuation of conflict, why are we involved and what do we seek to gain by prolonging it? I here suggest a few factors which influence me.

To me the central issue involved is open government. I define this as a government in which scholars have access to truth, especially in domestic affairs, can teach and publish it, and discuss it. It should include some means of change of policy which can result from such teaching, publication and discussion, either by elections (preferably) or some how else. I believe that only with this kind of government can conference table solutions to international problems be achieved. These problems are the urgent matters to which we must seek solution to avoid catastrophe in the future. The peaceful record of open government is very good since 1920 or so. In Vietnam we are supporting incipient efforts at forming open government. This is not only in Vietnam, but very importantly in the whole area from Korea to India and Africa. Our presence with our troops is far more eloquent than words. I believe it is being effective outside Vietnam.

The existence of open governments is not a natural consequence of normal progress. This is something which we as scientists should be acutely aware of. We have only been free to think, even in a limited way, for three hundred years or so. In recent times it has been clear that the degree of open government in the world is not increasing and perhaps is even diminishing at the moment. Only by strong effort on someone's part can this form of government, which I believe to be that desired by the majority of all peoples, but not desired by groups who seek to exert special power beyond their personal scope, to be allowed to grow. It is to me a sad thing that many of the other nations in which open governments occur to not see the importance of military adequacy. I am convinced, for example, that lives would be saved in the long run by a much more active intervention in Rhodesia than is at present being contemplated by Great Britain and that it is really her job to do more than she is doing. The United States is taking her responsibilities seriously and doing so should be given credit.

This present war is not a war of aggression. That there be suggestion that it is, which is present in the FAS news release is a distortion. We are a tortured and unhappy people. We are driven to do what we are doing because it is our belief that in the long run there will be less bloodshed and

more lives saved by doing it. This is without question our viewpoint and one that needs to be respected.

The kind of war which is being fought against us, guerrilla warfare, is a particularly repulsive form of influence. It means the control of 90% who want to live and farm, by 1% who want to raise trouble and gain power. I find it hard to think of a better cause in which to intervene than on behalf of some kind of government, almost any kind, which is not introducing such type of terrorist blackmail.

If we have to keep a running confrontation with communism, and it looks very much as though we have to, then Vietnam is a good place. The supply line from China into Vietnam is terribly difficult. I grew up in that part of the world and I well remember the journey which took me from Yunnan to Haiphong. It is a difficult supply line.

It seems to me that the opposition to the Vietnam War comes from two sources. One is the "new left" which is an anarchist group offering very little positive to society and which seeks essentially to create disturbance because they are convinced that our present society is not one in which they wish to live. Vietnam is convenient for them. Something else would be used if there were no war. The other group is a group which believes in what I call the "undeclared peace." They are a group who think the pattern of world thought has passed beyond that of force and armed efforts and warfare and instead has moved into a state in which peaceful settlement is to be sought. It would be very desirable if this were so, but I can find no evidence for it. The present mood of the nations of the world is not very different from that which existed in the 1930s. At that time many of us (and I was one of them) felt that the time had come to strengthen the League of Nations and seek disarmament. What became clear was that it was very easy for strong military leaders to take over nations and in a short six years pose one of the greatest of all threats to the freedom of mankind. The reason we are still free today is not because of the peaceful intentioned people, like myself, but because of those who resolutely supported and strengthened scientifically their nation's military potential. This is a lesson which we scientists should not ignore.

If it were true that we did have this genuine sweep of feeling throughout the world in favor of peaceful settlements, then it would be worthwhile risking our position. The FAS should examine whether this is a real position, whether the degree to which peaceful settlement will in the future be relied on has increased, and whether there is a strong sense of feeling in the world in this direction. I would like such a statement, assessing this present position. However, it has not been done and in the meantime we have to rely on our own impressions. My impression is that there is an active minority in the United States and perhaps a larger group in England that feels this way, but there is nowhere near strong enough feeling for us to say that we can abandon all thought of national techniques of intervention. Because there is tacit agreement to avoid nuclear weapons, we are very probably going to see much more of the type of guerrilla war which aims at imposing on the majority the will of a minority. To show that this does not pay, is, in my opinion, a contribution to world order and worth doing.

I definitely resent the statement which has put scientists versus our government. It is most unwise to do this unless we have a strong feeling that we must. Merely to have had to poll the Federation implies that the drive was questionable.

I greatly regret that the FAS for whatever reason, has given support to those who show, increasingly, that they have always been enemies of the U.S. It is my personal belief that they are also enemies of negotiated international justice, effective disarmament, and freedom of thought. I am not seeking to resign from the FAS and in fact as evidence of this, here is my check for \$25. Nevertheless, I am very sad that a group in which I have been closely involved has become so partisan.

Yours sincerely,  
Ernest C. Pollard

**NEWS ITEMS**

On April 28th two "Vela" nuclear test detection satellites were among five satellites orbited by a single booster at Cape Kennedy. The Vela satellites are in elliptical orbits ranging out to 69,000 miles from the earth. Weighing 731 pounds each, the two new satellites bring to eight the number of nuclear test detection satellites launched so far by the U.S. (NEW YORK TIMES; 29 April 1967)

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Herman J. Muller, Nobel prize winning geneticist, died on April 5th at the age of 76. Scientifically, Muller is best known for his pioneering discoveries on the hereditary effects of radiation. In recent years he engaged in a highly publicized campaign to warn of harmful mutations resulting from nuclear bomb tests. He was prominent in the Pugwash conferences of scientists, and once observed that "Scientists have the responsibility of seeing to it that their efforts are used for the benefit, not disadvantage, of their fellow humans." (NEW YORK TIMES; 6 April 1967)

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The French nuclear force will probably grow further. Informants close to the French nuclear weapons program say the Government now hopes to build 75 land-based strategic missiles, an increase of 50 per cent over previously announced plans. It also wants to expand its force of submarine carrying Polaris-type missiles to 5 vessels carrying 16 missiles each, 2 submarines and 35 missiles more than the earlier program. The French also are developing their first very small battlefield atomic weapons. This apparently is an important modification of the country's nuclear war strategy. (NEW YORK TIMES; 14 April 1967)

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The Indian "brain drain" is evoking increased concern in New Delhi, but Indian authorities have concluded that they cannot afford to entice scientists home. Statistics are fragmentary, but India is obviously an exporter of talent. At the end of last year, about 1,150 Indians held U.S. college or university positions, compared to only 200 American scholars in Indian institutions. In all, it is estimated that about 20,000 Indians with scientific and technical training are studying or working in Western nations. The Indian Government is reportedly facing the fact that it is failing to provide sufficient opportunities for scientists inside India, let alone for those outside. Concerned with the brain drain from developing nations, the Ford Foundation last year made a \$350,000 grant to an Indian voluntary organization seeking to bring Indian talent home. But the Indian Government won't let the organization accept the grant. (NEW YORK TIMES; 25 April 1967)

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The U.S. has refused to permit the sale of a two-man research submarine to the Soviet Union. The Soviet Academy of Sciences would have bought the deep diving (2,000 ft.) craft from the General Dynamics Corporation for a reported price of \$300,000. The State Department said that the sale would have been "inconsistent with the interests of United States security." It was apparently feared that the Russians might learn some hull construction and welding techniques which are used in the Navy's nuclear submarines. (NEW YORK TIMES; 15 April 1967)

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At least three bills introduced in the Senate and House would create committees to look into the side-effects of technology. Senator Muskie of Maine would have a Select Committee of the Senate on Technology and the Human Environment. Representative Daddario is backing a "Technology Assessment Board" as an arm of Congress. Senator Allott would create a joint Senate-House committee for continuing

study of Federal programs relating to science and technology. (SCIENCE NEWS; 1 April 1967)

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The U.S. has told six Atlantic allies that it sees "only a fair chance at best" of winning agreement from the Soviets to halt the deployment of antiballistic missile (ABM) defense systems. This appraisal was reportedly offered at a Washington meeting of the seven-nation Nuclear Planning Group of NATO.

After hearing an extensive briefing on antiballistic missile systems, the European defense ministers were reported by authoritative sources to have postponed any decision on whether the alliance itself needed an antiballistic missile defense system to match the one being installed by the Soviet Union. Defense Secretary Robert S. McNamara was reported to have told the ministers that such a system would cost \$3-billion to \$12-billion if it were installed in Europe.

His briefing, well-placed sources said, included a summary of American diplomatic efforts to induce the Kremlin to call a moratorium in the deployment of such defense systems and thereby avoid another costly spiral in the arms race. (NEW YORK TIMES; 8 April 1967)

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Plans for a total of 26 nuclear power plants with a capacity of over 21 million kilowatts were announced in 1966. This represents 55 per cent of the generating capacity announced by the electric utility industry in 1966. As of 31 March 1967, the status of U.S. nuclear power plants was as follows: 14 plants (2 million kilowatts) in operation; 13 plants (7 million kilowatts) under construction; 32 plants (23 million kilowatts) planned. (AEC Release; 10 April 1967)

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At the April meeting of the American Physical Society in Washington, Edward Teller stressed the possible peaceful uses of nuclear explosives. Teller mentioned large-scale earth moving, and using underground nuclear explosions to make oil and gas deposits more accessible. In the same speech he argued for deployment of a limited antiballistic missile defense, and said that he was beginning to believe that such a defense could be built without atmospheric nuclear testing. In a press conference following Teller's talk, FAS Executive Committee members Kalkstein, Orear, and Rodberg challenged many of Teller's points. On the same day Ralph Lapp, speaking in Indiana, argued against ABM deployment. (NEW YORK TIMES, WASHINGTON POST; 28 April 1967)

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NASA Administrator James T. Webb called for cooperation in space activities between the U.S. and the Soviet Union. In expressing sorrow at the death of Cosmonaut Komarov on April 23rd, Webb hinted that such cooperation might reduce the hazards of manned space flight. Similar hopes

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Chairman ..... Jay Orear

The FAS Newsletter is prepared in Washington.

Editor: Harriette L. Phelps.

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The FAS, founded in 1946, is a national organization of scientists and engineers concerned with the impact of science on national and world affairs.

Sources of information (given in the articles in parentheses) are for further reference. Items reprinted directly from other publications are designated as such in an introductory paragraph.

### RASMUSSEN, ELKIND RECEIVE AEC'S LAWRENCE MEMORIAL AWARD

Among six young nuclear scientists receiving this year's Lawrence Award for contributions related to atomic energy are two long-time FAS members. John O. Rasmussen of the University of California at Berkeley is the new Secretary of the FAS. Mortimer M. Elkind of the National Cancer Institute has been active in the Washington FAS Chapter and the Washington office of the FAS.

### NEWS ITEMS

(Continued from page 3)

for cooperation were expressed by Senator Clinton P. Anderson, Chairman of the Senate Space Committee, and by others in Congress. (NEW YORK TIMES; 25 April 1967)

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The National Academy of Sciences elected 45 new members, bringing its total membership to 783. (NEW YORK TIMES; 27 April 1967) The two-and-a-half-year-old National Academy of Engineering elected 93 new members, for a total of 188. (News Report of the Academies; April 1967)

### SENATE APPROVES SPACE TREATY

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exploration and use of space shall be carried out for the benefit of all mankind without discrimination.

The "treaty on principles governing the activities of states in the exploration and use of outer space, including the moon and other celestial bodies," as it is called formally, is ranked by the Administration with the treaty of 1959 that bans military activities in the Antarctica and the treaty of 1963 that bans all but underground tests of nuclear weapons.

Despite its emphasis on peaceful purposes, the treaty will not preclude all military activities in space. For example, it will not stop the launching of reconnaissance "spy" satellites or the use of communications and weather satellites for military purposes. The two major powers are now engaging in these projects. Nor will the treaty stop the launching by the United States Air Force of a manned orbiting laboratory to determine man's military usefulness in space.

In fact, the treaty is expected to have the ironic effect of leading to increased military activity in space by the United States—an outcome predicted by Gen. Earle G. Wheeler, chairman of the Joint Chiefs of Staff, in testifying in support of the treaty.

He indicated that the Administration had given assurances there would be "an increase in our military efforts in space" so that this country could determine whether the Soviet Union was abiding by the treaty's prohibition on the orbiting of nuclear weapons.

Reservations of some senators were overcome by assurances from Pentagon leaders that the treaty would not endanger national security, and that the United States had its own means, both in ground-based detection networks and observation satellites, to determine whether the Soviet Union was placing atomic bombs in orbit.

(Article by John W. Finney in the NEW YORK TIMES; 26 April 1967)

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